



HP LTO Ultrium 4 Tape Drive – Half-height

High capacity, performance and
security for direct attach backup



HP's fourth-generation of LTO tape drive technology, capable of storing up to 800GB per cartridge at up to 288GB per hour, is designed for server customers in direct attached storage (DAS) environments where space is limited and where hard disk and system bottlenecks can impede data transfer rates. To protect the most sensitive data, AES 256-bit hardware data encryption provides easy-to-enable security to prevent unauthorized access of tape cartridges.

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Key features and benefits

- **High Value:** High capacity combined with low media and drive cost delivers an exceptionally low cost of ownership.
- **Compact:** Half-height form factor saves space and fits in a wide variety of servers, workstations and autoloaders.
- **Dependable:** Incorporates high reliability in a robust drive with high standards of data integrity.
- **Backup more data in less time:** HP's fastest half-height LTO Ultrium drive with 288GB per hour transfer rate and 800GB per cartridge capacity. Performance optimized by unique dynamic Data Rate Matching feature.
- **Security:** AES 256 hardware data encryption helps prevent unauthorized access of data on cartridges that leave the data center and eliminates need to purchase and manage additional devices
- **Well connected:** Compatible with leading operating systems, backup software and servers.
- **Investment protection:** Backward compatible with LTO Ultrium 2 & 3 media. Delivers compelling migration path that will double in capacity every generation.

Specifications

Capacity	800GB native, typically 1.6TB with hardware data compression
Recording format	
Logical recording format:	LTO Ultrium 4, LTO Ultrium 3 and LTO Ultrium 2 (read)
Recording technology:	16 channel PRML linear serpentine recording on half-inch tape media
Performance	
Data compression:	LTO-DC dual mode compression (enhanced version of ALDC)
Memory buffer:	128MB
Data rate matching:	Dynamically variable adaptive tape speed to match host data rate from 33-80MB/sec (native)
Interface:	3Gbps Serial Attach SCSI (SAS)
Sustained transfer rate:	Up to 80MB/sec native (288GB/hr) Up to 160MB/sec compressed (576GB/hr)
Burst transfer rate:	300 MB/s
Data access speed:	70 seconds typical from beginning of media
Tape speed:	5.0 meters per second (rewind speed)
Media	LTO Ultrium 4 1.6TB (compressed) data cartridge
Reliability	
MTBF:	250,000 hours at 100% duty cycle
Corrected error rate:	1 in 1 x 10 ¹⁷ bits read
Loading mechanism:	Powered load with precision eject
Head life:	60,000 hours
Power requirements	
Idle:	13 Watts
Typical:	20 Watts
Maximum:	33 Watts
Power supply/required (int):	5V DC, 2.5A; 12V, 0.7A
Temperature	
Temperature range:	Operating: 50° F to 95° F (10° C to 40° C) at a minimum of 6CFM airflow Storage: -40° F to 151° F (-40° C to 66° C)
Non-condensing humidity range:	Operating: 20 to 80% RH (non-condensing) Storage: 10 to 95% RH (non-condensing)
Standards Compliance	CSA Certification to C22.2, No.60950 (cCSAus), TUV EN60950 (IEC 60950), CE Declaration of Conformity, FCC 47 CFR Parts 15, NOM, VCCI, C-TICK, RRL, BSMI, GOSH CB Certificate and Report (IEC 60950)
Physical characteristics	
Form factor:	5.25-inch wide, half-height
Dimensions (h x w x d):	1.6 x 5.7 x 8.1 inches (4.1 x 14.5 x 20.6 cm)
Weight:	3.2 lbs (1.45 KG)
Ordering information	
EB665A:	HP LTO Ultrium 4 half-height SAS tape drive (generic internal)
C7974A:	HP LTO Ultrium 1.6TB (compressed) RW data cartridge
C7974W:	HP LTO Ultrium 1.6TB (compressed) WORM data cartridge



Native capacity/transfer rates quoted unless otherwise stated. All brand and product names are trademarks or registered trademarks of their respective companies. Technical information is subject to change without notice. Copyright © 2008 Hewlett-Packard Company. All rights reserved